February 21, 1956

Dr. J. Z. Bowers
Dean, College of Medicine

Dear John:

Now that the problems of medical genetics are on the way to material solution, but while the college of medicine is still formally concerned with a re-evaluation of its curriculum and educational aims, I would like to put on the record some thoughts we have already discussed on the general problem of education for medical research. This goes back to a well-remembered evening at Dr. Stern's home in Berkeley some years ago.

First let me say that I believe it is quite possible for a determined student, acting on good advice, to secure the best possible training for medical research at Wisconsin, as at several other good schools. But I also believe that current educational practices have set up a number of roadblocks which may lead to frustration and diversion of many good potential researchers. I speak rather keenly on this topic from my own experience, and the attitudes of youngsters like Michael Frank suggest that the problem still exists.

There are a number of premises that underly this discussion. The first is that the M.D. curriculum, designed to educate practitioners, is not primarily suited for the training of researchers and teachers in the basic sciences. On the other hand, we hope to give these groups the most possible familiarity with the milieu in which the clinician operates, the better to communicate with him. (This would be particularly important in the qualifications of the teachers of any integrated curriculum as at Western Reserve.) Except for a few exceptional individuals, and in some specialties, we would not want to insist on the completion of the M.D. to be followed by a Ph.D. course. We have to be concerned also about the intellectual qualifications of prospective graduate students in the biological sciences. There is reason to believe that the most competent brains tend to go either into physics and chemistry on the one hand, or into medicine on the other: I am immediately concerned about students like Frank whose interests probably are in research but who feel they have to go through medical school to get their basic orientation.

I don't pretend to know all the answers to this problem; I do think it deserves to be studied as one of the aspects of medical education. One scheme I have thought of may have some pitfalls: as a designated program, second year students might be invited to apply for transfer to the Graduate School for research training in order

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established sciences, in place of continuing their third year of medical training. The two years of study might be recognized by the award of an M.S. (Medical Science) when coupled with an acceptable thesis, and they should probably be accepted in lieu of a minor study. To be sure, students have followed such a program (as I did in fact), but it is not likely to occur to many otherwise research-minded students to make that transfer, unless there is an established recognition of it. The Admissions criteria might have to be reviewed to help accomodate promising students who probably would follow this elective. A few students might try to continue their regular medical studies in conjunction with the Ph.D. program, but this would not often be advisable. Perhaps the main point of this approach is that most students at the time they graduate from college are still not yet experienced enough to be able to make a wise choice between graduate (i.e. research) and medical training, and why should that be enforced upon them at that time?

I have in mind that only a very few students in each class would ever be likely to make this transfer. Numerically, they will not be a substantial loss to the ranks of practitioners, but just because of their preoccupation with medicine they might be the most valuable recruits for teaching and research in the basic medical sciences.

This is not intended to be a concrete proposal, but it does illustrate one of the possible innovations that might be thought of to help improve the prestige and value of graduate research in the medical school.

Yours sincerely,

Joshua Lederberg
Professor of Genetics